

Message

From: Watkins, Tim [Watkins.Tim@epa.gov]
Sent: 1/19/2021 10:28:04 PM
To: Strynar, Mark [Strynar.Mark@epa.gov]
CC: Medina-Vera, Myriam [Medina-Vera.Myriam@epa.gov]; Gilliland, Alice [Gilliland.Alice@epa.gov]
Subject: RE: workforce planning and synthetic organic chemist

Thanks Mark – yes, this one did fall through the cracks with pre-Christmas stuff. Appreciate you resending it.

Tim Watkins
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Ex. 6 Personal Privacy (PP)

“Protecting human health and the environment by delivering innovative measurement and modeling solutions to EPA and our partners.”

From: Strynar, Mark <Strynar.Mark@epa.gov>
Sent: Tuesday, January 19, 2021 1:35 PM
To: Watkins, Tim <Watkins.Tim@epa.gov>
Cc: Medina-Vera, Myriam <Medina-Vera.Myriam@epa.gov>
Subject: FW: workforce planning and synthetic organic chemist

Tim,

Here is what I sent before Christmas. It may have gotten lost in the shuffle. I think specific to PFAS we are ripe for this capability. Beyond PFAS this will be needed with NTA and additional non-PFAS needs in the future. We always hit this wall. I think it serves CSS, SSWR and SHC at this time. I expect future support to other Centers and States and Regional Needs.

Mark

From: Strynar, Mark
Sent: Thursday, December 17, 2020 7:33 AM
To: Watkins, Tim <Watkins.Tim@epa.gov>
Cc: Oshima, Kevin <Oshima.Kevin@epa.gov>; Medina-Vera, Myriam <medina-vera.myriam@epa.gov>
Subject: workforce planning and synthetic organic chemist

Tim,

I wanted to bring to your attention what I perceive as a need within CEMM for the work we are doing. Every time we find some new compound in the environment using HRMS and NTA techniques we come to a hurdle we need to jump through. This is first and foremost to confirm identification of a discovered chemical. Second this is used to quantitate for concentration (and for our health effect colleagues determine toxicity). I know you are aware of this from our many reports to NC DEQ in the recent past.

There are three ways to jump over this hurdle.

- 1) Find the proposed chemical from a commercial vendor
- 2) Get the chemical from the industrial producer (example Chemours)
- 3) Get the chemical synthesized

If number one is an option it is the fastest, easiest and cheapest route. However my recent experience has been infrequently the route we can go. This was evident in McMahan et al., 2016 work on fipronil chloramine in wastewater. Luckily Rebecca was trained as a synthetic organic chemist and we were able to synthesize the chemical we needed on our own. Sadly Rebecca is no longer here.

More recently in Strynar et al., 2015 for the work near Chemours in Fayetteville, NC or the work of Washington et al., 2020 and McCord et al., 2020 for our work in New Jersey with the Cl-PFECAs routes 2 and 3 are our only options. Both of these have large time constraints, lack of cooperation or in the third instance are also quite costly.

I bring this up as I think a good solution would be to either:

- 1) identify a person within the EPA already that possesses the skills to do organic synthesis and chemical purification, or
- 2) to consider a hire in the future that has this capability.

I am sure I am not the only one who sees this as a need within CEMM. I took a chemical synthesis class at ACS 2 years ago and realized I was way over my head if I were the one trying to do this. I am fairly confident our colleagues in CCTE, CSER and CPHEA may also think this a good idea if asked.

I am glad to have any follow-up discussion or if needed I could flesh out in more details what would be needed to do this type of work in house. I have not sent this to any other EPA colleagues however I also expect those I work most closely with would agree.

Thanks,
Mark

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